

## Supplementary Materials

A full list of the 108 articles extracted from the four databases, including the author's name, the journal's name, and the year.

**Table S1.** The 108 articles extracted from WoS, IEEE, Scopus and Google scholar.

Authors	Journal Name	Year
Ali, I; Barrett, B; Cawkwell, F; Green, S; Dwyer, E; Neumann, M	IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing	2017
Ali, I; Cawkwell, F; Dwyer, E; Green, S	IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing	2016
An, N; Price, KP; Blair, JM	International Journal of Remote Sensing	2013
Bao, N; Li, W; Gu, X; Liu, Y	Remote Sensing	2019
Barrachina, M; Cristobal, J; Tulla, AF	International Journal of Applied Earth Observation and Geoinformation	2015
Braun, A; Wagner, J; Hochschild, V	Journal of Applied Remote Sensing	2018
Butterfield, HS; Malmstrom, CM	International Journal of Remote Sensing	2009
Chen, J; Gu, S; Shen, M; Tang, Y; Matsushita, B	International Journal of Remote Sensing	2009
Cho, MA; Skidmore, AK	International Journal of Remote Sensing	2013
Cicore, P; Serrano, J; Shahidian, S; Sousa A; Costa, JL; Da Silva, JRM	Environmental Monitoring and Assessment	2016
Cisneros, A; Fiorio, P; Menezes, P; Pasqualotto, N; Van Wittenberghe, S; Bayma, G; Nogueira, SF	Agronomy-Basel	2020
Clevers, JGPW; Van der Heijden, GWAM; Verzakov, S; Schaepman, ME	Photogrammetric Engineering & Remote Sensing	2007
Cooper, SD; Roy, DP; Schaaf, CB; Paynter, I	Remote Sensing	2017
Ding, L; Li, Z; Wang, X; Yan, R; Shen, B; Chen, B; Xin, X	Sensors	2019
Diouf AA; Hiernaux P; Brandt M; Faye G; Djaby, B; Diop MB; Ndione JA; Tychon B	Remote Sensing	2016
Duan, M; Gao, Q; Wan, Y; Li, Y; Guo, Y; Ganzhu, Z; and Qin, X	Canadian Journal of Remote Sensing	2011
Durante, M; Oesterheld, M; Pineiro, G; Vassallo, MM	International Journal of Remote Sensing	2014
Dusseux, P; Hubert-Moy, L; Corpetti, T; Vertès, F	International Journal of Applied Earth Observation and Geoinformation	2015
Egeru, A; Wasonga, O; Kyagulanyi, J; Majaliwa, GJ; MacOpiyo, L; Mburu, J	Pastoralism	2014
Fajji, NG; Palamuleni, LG; Mlambo, V	South African Journal of Geomatics	2017
Fatehi, P; Damm, A; Schweiger, AK; Schaepman, ME; Kneubühler, M	IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing	2015
Flynn, ES; Dougherty, CT; Wendroth, O	Agronomy Journal	2008
Friedl, MA; Schimel, DS; Michaelsen, J; Davis, FW; Walker, H	International Journal of Remote Sensing	1994
Frolking, S; Fahnestock, M; Milliman, T; McDonald, K; Kimball, J	Geophysical Research Letters	2005

Gao, JX; Chen, YM; Lü, SH; Feng, CY; Chang, XL; Ye, SX; Liu, JD	International Journal of Remote Sensing	2012
Gao, T; Xu, B; Yang, X; Jin, Y; Ma, H; Li, J; Yu, H	International Journal of Remote Sensing	2012
Gao, X; Dong, S; Li, S; Xu, Y; Liu, S; Zhao, H; Yeomans, J; Li, Y; Shen, H; Wu, S; Zhi, Y	Ecological Indicators	2020
Gianelle, D; Vescovo, L; Mason, F	International Journal of Wildland Fire	2009
Gianelle, DAMIANO; Guastella, FB;	International Journal of Remote Sensing	2010
Gruner, E; Astor, T; Wachendorf, M	Agronomy-Basel	2019
Guerini Filho, M; Kuplich, TM; Quadros, FLD	International Journal of Remote Sensing	2020
Hajj, ME; Baghdadi, N; Belaud, G; Zribi, M; Cheviron, B; Courault, D; Hagolle, O; Charron, F	Remote Sensing	2014
He, L; Li, A; Yin, G; Nan, X; Bian, J	Remote Sensing	2019
Ikeda, H; Okamoto, K; Fukuhara, M;	International Journal of Remote Sensing	1999
Jansen, VS; Kolden, CA; Schmalz HJ	Remote Sensing	2018
Jia, W; Liu, M; Yang, Y; He, H; Zhu, X; Yang, F; Yin, C; Xiang, W	Ecological Indicators	2016
Jiang, YB; Tao, J; Huang, YQ; Zhu, JT; Tian, L; Zhang, YJ	Journal of Plant Ecology	2015
Jin, Y; Yang, X; Qiu, J; Li, J; Gao, T; Wu, Q; Zhao, F; Ma, H; Yu, H; Xu, B	Remote Sensing	2014
Justice BO; Hiernaux PHY	International Journal of Remote Sensing	1986
Kawamura, K; Betteridge, K; Sanches, ID; Tuohy, MP; Costall, D; Inoue, Y	New Zealand Journal of Agricultural Research	2009
Li, C; Wulf, H; Schmid, B; He, JS; Schaeppman, ME	IEEE Journal of Selected Topics in Applied Earth Observations And Remote Sensing	2018
Li, F; Zeng, Y; Luo, J; Ma, R; Wu, B	Ecological Indicators	2016
Li, Z; Guo, X	Canadian Journal of Remote Sensing	2017
Li, ZQ; Guo, XL	International Journal of Remote Sensing	2018
Liang, T; Yang, S; Feng, Q; Liu, B; Zhang, R; Huang, X; Xie, H	Remote Sensing of Environment	2016
Liu, S; Su, X; Dong, S; Cheng, F; Zhao, H; Wu, X; Li, J.	Giscience & Remote Sensing	2015
Lussem, U; Schellberg, J; Bareth, G	PFG-Journal of Photogrammetry, Remote Sensing and Geoinformation Science	2007
Marabel, M; Alvarez-Taboada, F	Sensors	2008
Meng, B; Ge, J; Liang, T; Yang, S; Gao, J; Feng, Q; Cui, X; Huang, X; Xie, H	Remote Sensing	2015
Meng, B; Liang, T; Yi, S; Yin, J; Cui, X; Ge, J; Hou, M; Lv, Y; Sun, Y	IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing	2020
Meshesha, DT; Ahmed, MM; Abdi, DY; Haregeweyn, N	Heliyon	2020
Moeckel, T; Safari, H; Reddersen, B; Fricke, T; Wachendorf, M	Remote Sensing	2017
Moreau, S; Le Toan, T	Remote Sensing of Environment	2003
Mutanga, O; Rugege, D	International Journal of Remote Sensing	2006
Mutanga, O; Skidmore, AK	International Journal of Applied Earth Observation And Geoinformation	2004

Mutanga, O; Skidmore, AK	International Journal of Remote Sensing	2004
Naidoo, L; Van Deventer, H; Ramoelo, A; Mathieu, R; Nondlazi, B, Gangat, R	International Journal of Applied Earth Observation and Geoinformation	2019
Olsen, JL; Miehe, S; Ceccato, P; Fensholt, R	Biogeosciences	2015
Otgonbayar, M; Atzberger, C; Chambers, J; Damdinsuren, A	International Journal of Remote Sensing	2019
Prince SD; Tucker, CJ	International Journal of Remote Sensing	1986
Psomas, A; Kneubühler, M; Huber, S; Itten, K; Zimmermann, NE	International Journal of Remote Sensing	2011
Punalekar, SM; Verhoef, A; Quaife, TL; Humphries, D; Bermingham, L; Reynolds, CK	Remote Sensing of Environment	2018
Quan, X; He, B; Yebra, M; Yin, C; Liao, Z; Zhang, X; Li, X	International Journal of Applied Earth Observation and Geoinformation	2017
Ramoelo, A; Cho, MA; Mathieu, R; Madonsela, S; Van De Kerchove, R; Kaszta, Z; Wolff, E	International Journal of Applied Earth Observation and Geoinformation	2015
Ren, H; Feng, G;	Grass and Forage Science	2015
Sang, H; Zhang, J; Lin, H; Zhai, L	Remote Sensing	2014
Sarrazin, MJD; Van Aardt, JAN; Asner, GP; Mcglinchy, J; Messinger, DW; Wu, J	Canadian Journal of Remote Sensing	2011
Schino, G; Borfecchia, F; De Cecco, L; Dibari, C; Iannetta, M; Martini, S; Pedrotti, F	Agroforestry Systems	2008
Schmidt, M; Carter, J; Stone, G; O'Reagain, P	Remote Sensing	2016
Schulze-Brüninghoff, D; Hensgen, F; Wachendorf, M; Astor, T	Computers and Electronics in Agriculture	2019
Schweiger, AK; Risch, AC; Damm, A; Kneubuhler, M; Haller, R; Schaepman, ME; Schutz, M	Journal of Vegetation Science	2015
Schwieder, M; Buddeberg, M; Kowalski, K; Pfoch, K; Bartsch, J; Bach, H; Pickert, J; Hostert, P	PFG-Journal of Photogrammetry Remote Sensing and Geoinformation Science	2020
Shen, M; Tang, Y; Klein, J; Zhang, P; Gu, S; Shimono, A; Chen, J	Journal of Plant Ecology	2008
Shoko, C; Mutanga, O; Dube, T	Remote Sensing	2013
Shoko, O Mutanga, T Dube	International Journal of Applied Earth Observation and Geoinformation	2018
Sibanda, M; Mutanga, O; Rouget, M	Giscience & Remote Sensing	2016
Sibanda, M; Mutanga, O; Rouget, M	ISPRS Journal of Photogrammetry and Remote Sensing	2015
Sibanda, M; Mutanga, O; Rouget, M; Kumar, L	Remote Sensing	2017
Svoray, T; Shoshany, M	International Journal of Remote Sensing	2002
Ullah, S; Si, Y; Schlerf, M; Skidmore, A.K; Shafique, M; Iqbal, IA	International Journal of Applied Earth Observation and Geoinformation	2012
Vanamburg, LK; Trlica, MJ; Hoffer, RM; Weltz, MA	International Journal of Remote Sensing	2006
Verbesselt, J; Somers, B; van Aardt, J.A.N; Jonckheere, I; Coppin, P	Remote Sensing of Environment	2006

Vescovo, L; Gianelle, D	Advances in Space Research	2008
Vogel, S; Gebbers, R; Oertel, M; Kramer, E	Sensors	2019
Wang, CY; Price, KP; Merwe, D; An, N; Wang, H	Photogrammetric Engineering & Remote Sensing	2014
Wang, D; Xin, X; Shao, Q; Brolly, M; Zhu, Z; Chen, J	Sensors	2017
Wang, G; Liu, S; Liu, T; Fu, Z; Yu, J; Xue, B	International Journal of Remote Sensing	2019
Wang, J; Xiao, X; Bajgain, R; Starks, P; Steiner, J; Doughty, RB; Chang, Q	ISPRS Journal of Photogrammetry And Remote Sensing	2019
Wang, X; Dong, J; Baoyin, T; Bao, Y	Sustainability	2019
Wang, X; Ge, L; Li, X; Gherardi, S	Photogrammetric Engineering & Remote Sensing	2014
Wang, Y; Wu, G; Deng, L; Tang, Z; Wang, K; Sun, W; Shangguan, Z	Scientific Reports	2017
Wehlage, DC; Gamon, JA; Thayer, D; Hildebrand, DV	Remote Sensing	2016
Wessels, KJ; Prince, SD; Zambatis, N; MacFadyen, S; Frost, PE; Van Zyl, D	International Journal of Remote Sensing	2006
Wijesingha, J; Moeckel, T; Hensgen, F; Wachendorf, M	International Journal of Applied Earth Observation and Geoinformation	2019
Wylie, BK; Meyer, DJ; Tieszen, LL; Mannel, S	Remote Sensing of Environment	2009
Xie, Y; Sha, Z; Yu, M; Bai, Y; Zhang, L	Ecological Modelling	2009
Xing, M; He, B; Li, X	Journal of Applied Remote Sensing	2014
Yan, F; Wu, B; Wang, Y.	Journal Of Arid Land	2013
Yang, S; Feng, Q; Liang, T; Liu, B; Zhang, W; Xie, H	Remote Sensing of Environment	2018
Yin, G; Li, A; Wu, C; Wang, J; Xie, Q; Zhang, Z; Nan, X; Jin, H; Bian, J; Lei, G	ISPRS International Journal of Geo-Information	2018
Yin, X; Wang, C; Zong, Z; Wang, H; Zhang, ; Zhang, W	Spectroscopy Letters	2018
Zeng, N; He, H; Ren, X; Zhang, L; Zeng, Y; Fan, J; Li, Y; Niu, Z; Zhu, X; Chang, Q	International Journal of Remote Sensing	2020
Zeng, N; Ren, X; He, H; Zhang, L; Li, P; Li, Z; Zhang, L	Research of Environmental Sciences	2017
Zeng, N; Ren, X; He, H; Zhang, L; Zhao, D; Ge, R; Niu, Z	Ecological Indicators	2019
Zhang, B; Zhang, L; Xie, D; Yin, X; Liu, C; Liu, G	Remote Sensing	2016
Zhang, H; Sun, Y; Chang, L; Qin, Y; Chen, J; Qin, Y; Du J; Yi, S, Wang, Y	Remote Sensing	2018
Zhang, X; Chen, X; Tian, M; Fan, Y; Ma, J; Xing, D	Plos One	2020
Zhao, F; Xu, B; Yang, X; Jin, Y; Li, J; Xia, L; Chen, S; Ma, H	Remote Sensing	2014